SIMULTANEOUS ESOPHAGEAL MANOMETRY AND CORONARY ANGIOGRAPHY

received ergonovine, though in two patients focal coronary artery spasm developed without concomitant chest pain and in one patient mild esophageal dysmotility was noted.

In conclusion, simultaneous angiography and esophageal manometry during ergonovine provocation testing is easy to carry out and may enhance the diagnostic yield of the procedure. This technique avoids the risk of ergonovine infusion outside of a cardiac laboratory. We recommend the application of this technique in all patients who are candidates for ergonovine provocation testing during coronary angiography.

REFERENCES

- 1. Benjamin SB, Gerhardt DC, Castell DO: High amplitude, peristaltic esophageal contractions associated with chest pain and/or dysphagia. Gastroenterology 1979 Sep; 77:478-483
- 2. Brand DL, Martin D, Pope CE: Esophageal manometrics in patients with angina-like chest pain. Am J Dig Dis 1977 Apr; 22:300-304
- 3. Ferguson SC, Hodges K, Hersh T, et al: Esophageal manometry in patients with angina-like chest pain. Am J Gastroenterol 1981 Feb; enterol 1981 Feb; 75:124-127
- 4. Kline M, Chesne R, Sturdevant RAL, et al: Esophageal disease in patients with angina-like chest pain. Am J Gastroenterol 1981 Feb; 75:116-123

- 5. Eastwood GL, Weiner BH, Dickerson WJ, et al: Use of ergonovine to identify esophageal spasm in patients with chest pain. Ann Intern Med 1981 Jun; 94:768-771
- 6. London RL, Ouyang A, Snape WJ, et al: Provocation of esophageal pain by ergonovine or edrophonium. Gastroenterology 1981 Jul; 81:10-14
- 7. Curry RC, Pepine CJ, Sabom MB, et al: Effects of ergonovine in patients with and without coronary artery disease. Circulation 1977 Nov; 56:803-809
- 8. Heupler FA, Proudfit WL, Razavi M, et al: Ergonovine maleate provocation test for coronary arterial spasm. Am J Cardiol 1978 Apr; 41:631-640
- 9. Nelson C, Nowak B, Childs H, et al: Provocative testing for coronary arterial spasm: Rationale, risk and clinical illustrations. Am J Cardiol 1977 Oct; 40:624-629
- 10. Curry RC, Pepine CJ, Sabom MB, et al: Hemodynamic and myo-cardial metabolic effects of ergonovine in patients with chest pain. Circu-lation 1978 Oct; 58:648-654
- 11. Gravino FN, Perloff JK, Yeatman LA, et al: Coronary arterial spasm versus esophageal spasm. Am J Med 1981 Jun; 70:1293-1296
- 12. Davies HA, Kaye MD, Rhodes J, et al: Diagnosis of esophageal spasm by ergometrine provocation. Gut 1982 Feb; 23:89-97

 13. Koch KL, Curry RC, Feldman RL, et al: Ergonovine-induced esophageal spasm in patients with chest pain resembling angina pectoris. Dig Dis Sci 1982 Dec; 27:1073-1080
- 14. Buxton A, Goldberg S, Hirshfeld JW, et al: Refractory ergonovine-induced coronary vasospasm: Importance of intracoronary nitroglycerin. Am J Cardiol 1980 Aug; 46:329-334
- 15. Bauman D: Complications after provocation of coronary spasm with ergonovine maleate. Am J Cardiol 1978 Oct; 42:694
- 16. Heupler FA: Provocative testing for coronary arterial spasm: Risk, method and rationale. Am J Cardiol 1980 Aug; 46:335-337
- 17. Ockene IS, Shay MJ, Alpert JS, et al: Unexplained chest pain in patients with normal coronary angiograms: A follow-up study of functional status. N Engl J Med 1980 Nov 27; 303:1249-1252

Medical Practice Questions

EDITOR'S NOTE: From time to time medical practice questions from organizations with a legitimate interest in the information are referred to the Scientific Board by the Quality Care Review Commission of the California Medical Association. The opinions offered are based on training, experience and literature reviewed by specialists. These opinions are, however, informational only and should not be interpreted as directives, instructions or policy state-

Endothelial Cell Counts

OUESTION:

Are endothelial cell counts performed by ophthalmologists medically necessary?

OPINION:

In the opinion of the Scientific Advisory Panel on Ophthalmology, specular endothelial photomicroscopy with endothelial cell counting is considered established medical practice. In selected cases where endothelial disease is suspected or when a patient has had a previous ocular surgical procedure or significant ocular trauma, preoperative endothelial cell counting is helpful in determining if an operation is indicated and, if so, the most appropriate surgical procedure.

The ophthalmic community agrees that endothelial cell photography is a useful procedure which is safe, enjoys wide clinical acceptability as a highly useful measure of corneal health, is highly useful in identifying those patients who would be at a greater risk for serious ocular disease with certain ocular procedures and is effective in differentiating among several important disease processes.